

### REMARKS

Claims 1-32 are pending in this application. Claims 1 and 9 have been amended herein. Claims 2-8 and 10-32 remain unchanged. Applicant acknowledges the indication by the Examiner that claims 19-32 are allowed.

Claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lumb et al. US 5,312,667 in view of Fujiwara JP 09-087901 A. Claims 1-18 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lumb et al. US 5,312,667 in view of George (US 4,425,397). Enclosed for the Examiner's information is a translation of the Fujiwara Japanese '901 patent.

Claim 1 has been amended to include elements of claim 9. Claim 9 has been amended to include elements disclosed in the specification as filed, for example, at page 6, lines 2-4.

The proposed combination of Lumb and Fujiwara does not render Applicant's amended claim 1 obvious. Amended claim 1 recites an inner fabric layer that includes a plurality of hydrophilic fibers embedded with particles of a refractory compound, the inner fabric layer having a raised surface. The raised surface of the fabric layer allows heat to radiate from the user's skin and maximizes retention of this radiant heat by the refractory compound.

As acknowledged by the Examiner, "Lumb does not disclose the use of particles of a refractory compound embedded within the yarn fibers of the inner fabric layer."

Fujiwara would not have suggested to the artisan to include yarn fibers embedded with a refractory compound in the inner, raised, fabric layer of the fabric described by Lumb.

Fujiwara discloses fibers that contain a heat-storing compound, e.g., a refractory compound. In Fujiwara, the fibers are intended to absorb sunlight, convert its energy to heat, and transfer the heat to a wearer of "... thin pantyhose and long stocking that seek the beauty of leg lines (see paragraph [0005] of the translation). This heating effect is provided "without losing fashion properties" (see paragraph [0005] of the translation). Fujiwara's teachings are directed solely to pantyhose and stockings, which are typically close fitting garments that are intended to be in intimate contact with a wearer's skin and thus are not intended to have a raised surface. Such a surface would increase the thickness of the fabric, compromising fashion properties as

discussed by Fujiwara at paragraph [0004] of the translation. Thus, Fujiwara only contemplates using the refractory particles in a fabric that would intimately contact the skin and thus would transfer heat to the skin through such contact. It would not have been obvious to the artisan that a heating effect would be obtained if the particles were instead used in a fabric having a raised surface.

Moreover, Fujiwara would not have suggested including the refractory particles in an *inner* fabric layer. Doing so would go against the express teachings of Fujiwara. In Fujiwara, the refractory particles are intended to "absorb the visible light rays in solar energy and convert them to heat" (paragraph [0007] of translation). To absorb these visible light rays, the fibers containing the refractory particles should be exposed to sunlight. In this regard, Fujiwara notes that, to reduce cost, the refractory particles may be included only in the areas of the stocking "where sunlight hits" (paragraph [0008] of translation).

Thus, the teachings of Fujiwara would, at most, have suggested to the artisan to include refractive particles in a fabric that intimately contacts the wearer's skin, to allow heat to transfer to the skin, and to include the particles in a manner so that the particles are exposed to sunlight.

For at least these reasons, Applicants submit that claim 1 and the claims that depend therefrom are patentable over the proposed combination of Fujiwara with Lumb.

Applicants respectfully submit that the Examiner's proposed combination of Lumb and George is improper because George constitutes non-analogous art. To be considered analogous art that is relevant to a determination of obviousness, a reference must either (a) be within the field of the inventor's endeavor, or (b) be "reasonably pertinent to the particular problem with which the inventor was involved." See, e.g., *In re Deminski*, 796 F.3d 436, 230 USPQ 313 (Fed. Cir. 1986). George discloses an electrical insulating tape made of a knit fiberglass substrate fabric. Electrical insulating tapes are not within the Applicants' field of endeavor. Nor are George's teachings reasonably pertinent to the problem with which Applicants were faced - providing additional warmth to an article of clothing. Electrical insulating tapes would not have the tactile properties required of an article of clothing. In addition, fiberglass causes skin irritation and therefore would not be suitable for an article of clothing.

Even if the combination of Lumb with George is proper, which Applicant does not concede, the Examiner's proposed combination of Lumb and George would nonetheless not

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render claim 1 obvious. Claim 1 requires "particles of a refractory compound [that] are embedded within" yarn fibers of the fabric.

As noted above, Lumb does not teach or suggest particles of a refractory compound embedded within yarn fibers.

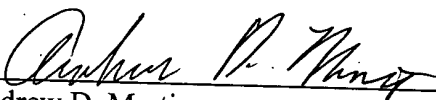
George provides no teaching or suggestion to *embed* refractory particles within the fibers of a fabric layer. Instead, George discloses, "[t]he refractory materials are uniformly dispersed throughout the bonding agent and then the mixture may be applied to the porous base fabric to form the refractory coating." (See column 3, lines 29-34.) George repeatedly refers to the refractory material as a refractory coating. (See column 3, line 38; column 5, line 41; and abstract.)

For at least this reason, Applicant submits that independent claim 1 (and its dependent claims, 2-18) are patentable over Lumb and George.

Attached is a marked-up version of the changes being made by the current amendment. Applicants ask that all claims be allowed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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**Version with markings to show changes made.**

**In the claims:**

Claims 1 and 9 has been amended as follows:

1. A composite textile fabric comprising an inner fabric layer made of a yarn comprising a plurality of fibers of polyester or other synthetic yarn which have been rendered hydrophilic, and an outer fabric layer made of a yarn comprising a plurality of fibers of polyester or other synthetic yarn which have also been rendered hydrophilic;

wherein the inner fabric layer and outer fabric layer are formed concurrently by knitting a plaited construction; [and]

wherein particles of a refractory compound are embedded within said plurality of yarn fibers of said inner fabric layer; and

wherein said inner fabric layer has a raised surface.

9. The textile fabric of Claim 1, further comprising a fleece layer wherein the fleece layer provides the inner fabric layer with the raised surface[wherein said inner fabric layer has a raised surface].